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09/698,009	10/26/2000	Phillip A. Koehler	5544/301	3492

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EXAMINER	
HAWKINS, CHERYL N	
ART UNIT	PAPER NUMBER
1734	

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

HG

Office Action Summary	Application No.	Applicant(s)	
	09/698,009	KOEHLER ET AL.	
	Examiner	Art Unit	
	Cheryl N Hawkins	1734	

-- The MAILING DATE of this communication appears on th cover sh et with th corr spondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4 and 7-47* is/are pending in the application.

4a) Of the above claim(s) *20-33* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7-19 and 34-47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 October 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *12* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-4, 7, 19, 38, 43, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foote, Jr. et al. (US 4,083,737) in view of Helm et al. (US 3,745,893) and Pfaff, Jr. (US 4,197,154). As to Claims 1 and 43, Foote, Jr. et al. discloses a laminating device (Figures 1 and 2) which includes a primary feeding mechanism (guide roll 80) cooperating with a primary supply web (second web 24) for advancing a predetermined length of the primary supply web; a secondary feeding mechanism (web feed shuttle 16) for advancing a predetermined length of secondary web (first web 20); a cross web shearing apparatus (cutting station 10) positioned downstream from the secondary feeding mechanism for receiving the predetermined length of the secondary web, the cross web shearing apparatus including a shear blade (movable cutting member 32) positioned substantially perpendicular to the secondary web and movable through a cutting motion to cause a strip to be sheared from the secondary web; a handling drive (square member 68) positioned adjacent the shearing apparatus for receiving the strip from the shearing apparatus and moving the reinforcing strip to a sealing location adjacent the primary supply web; and a laminating device (tacking station 14) located proximate to a handling manifold (square member 68) for sealing the strip to the primary supply web. Foote, Jr.

et al. discloses that the length of the strip is determined by the width of the strip (column 3, lines 17-23). When a user selects the width of the strip material to be used in the laminating device of Foote, Jr. et al., it is noted that they are also selecting the predetermined length of the web. In any event, it is well known and conventional in the web handling apparatus art, as disclosed by Helm et al. (column 4, lines 35-38) and Pfaff, Jr. (column 2, line 65 through column 3, line 4), to pre-select the length of a severed web portion to be placed onto another continuous web. It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the handling manifold with one of a different size to provide strip materials with a desired length.

As to Claims 2 and 44, Foote, Jr. et al. discloses a laminating device in which the cross web shearing apparatus includes a support blade (stationary cutting member 28) positioned substantially perpendicular to the shear blade and in a cutting relationship therewith such that the shear blade and the support blade cause the shearing of the strip (Figures 1 and 2).

As to Claim 3, Foote, Jr. et al. discloses a laminating device in which the primary feeding mechanism is a driven primary feed roller controlled to feed the predetermined amount of the primary web (guide roll 80).

As to Claim 4, Foote, Jr. et al. discloses a laminating device in which the secondary feeding mechanism is a driven secondary feed roller controlled to feed the predetermined amount of the secondary web (web feed shuttle 16).

As to Claim 7, Foote, Jr. et al. discloses a laminating device in which the handling drive includes a vacuum applicator manifold using a vacuum signal to hold the secondary web (anvil sections 74, vacuum ports 78).

As to Claim 19, Foote, Jr. et al. discloses a laminating device in which the shear blade extends only a predetermined distance below the support blade at any time (Figure 2).

As to Claims 38, Foote, Jr. et al. discloses an apparatus in which the shear blade extends only a predetermined distance towards the handling drive such that the shear blade does not extend into the path of motion of the handling drive (Figures 1 and 2).

As to Claim 45, Foote, Jr. et al. discloses an apparatus in which the shear blade extends only a predetermined distance such that the shear blade does not extend into the path of the primary supply web (Figure 1, cutting station 10).

3. Claims 16-18 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foote, Jr. et al. (US 4,83,737), Helm et al. (US 3,745,893), and Pfaff, Jr. (US 4,197,154) as applied to claim 2 above, and further in view of Fukumoto (US 6,189,469), Boreali et al. (US 6,210,515), Dreier et al. (US 4,463,693), and Taylor, Jr. (US 5,331,741). As to Claims 16, 17, and 18, Foote, Jr. et al. does not disclose a laminating device in which the cutting motion is a rocking motion. Fukumoto discloses a stripping cutting device in which the shear blade is curved and the cutting motion is a rocking motion (Figure 11; column 1, lines 57-65). Boreali et al. discloses that cutting devices such as guillotine cutters, scissors cutters, or rotating cutting cylinders can be used interchangeably for cutting a strip material (column 3, lines 62-67). It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the cutting mechanism of Foote, Jr. et al. with the cutting mechanism such as that of Fukumoto; guillotine cutters and scissors cutters being functionally equivalent for cutting strip materials. Foote, Jr. et al. does not disclose a laminating device having actuating structural elements

including cam tracks, cam followers, or cam pins. It is well known and conventional in the cutting apparatus art, as disclosed by Dreier et al. (Figures 1 and 2; column 4, lines 54-63) and Taylor, Jr. (column 3, lines 5-16), to use cam tracks, cam followers, cam framework, and cam pins to facilitate movement of a cutting blade. When modifying the apparatus of Foote, Jr. et al. as noted above to include a shear blade having a rocking cutting motion, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize conventionally known actuating structural elements such as cam tracks, cam followers, and cam pins to effect the movement of the shear blade.

As to Claim 40, Foote, Jr. et al. discloses a laminating device in which the shear blade extends only a predetermined distance past the support blade. It is noted that when modifying the apparatus of Foote, Jr. et al. as noted above to include conventional cam tracks, cam followers, and cam pins to effect movement of the shear blade, the movement of the shear blade would be limited to a predetermined distance by the support blade.

4. Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foote, Jr. et al. (US 4,083,737) in view of Helm et al. (US 3,745,893), Pfaff, Jr. (US 4,197,154), and van der Klugt (US 5,584,954). Foote, Jr. et al. discloses an apparatus for producing a supply of material in a web format having reinforcements in predetermined locations (abstract;: Figures 1 and 2) comprising a primary supply feeding roll (guide roll 80) coupled to a primary web (second web 24) to move the primary web in a predetermined manner; a secondary supply feed mechanism (web feed shuttle 16) coupled to a secondary web (first web 20) to move the secondary web in a predetermined manner; a cross web shear device (cutting station 10) having a

shear blade (moveable cutting member 32), the cross web shear device positioned to receive the secondary supply web at a cutting position between the shear blade and the support blade (stationary cutting member 28), the cross web shear further having a blade actuator (movable holder 34) for moving the shear blade through a cutting motion after the secondary web has been positioned at the cutting position resulting in a reinforcing strip to be sheared from the secondary web; a movable applicator having an applicator manifold (square member 68) positionable in a cutting position adjacent the cross web shear such that the secondary web extends adjacent a holding surface of the applicator manifold when the secondary web is in the cutting position, the applicator manifold having a plurality of vacuum apertures (Figure 3, vacuum ports 78) in the holding surface to create a vacuum seal between the secondary web and the holding surface when the secondary web is in the cutting position, the movable applicator movable between cutting position and a delivery position allowing movement of the reinforcement strip to an attachment location; and an attachment device (tacking station 14) positioned adjacent the primary web and adjacent the applicator delivery position, in which the reinforcing strip can be attached to the primary web at a reinforcing location by the attachment device cooperating with the applicator. Foote, Jr. et al. discloses that the length of the strip is determined by the width of the strip (column 3, lines 17-23). When a user selects the width of the strip material to be used in the laminating device of Foote, Jr. et al., it is noted that they are also selecting the predetermined length of the web. In any event, it is well known and conventional in the web handling apparatus art, as disclosed by Helm et al. (column 4, lines 35-38) and Pfaff, Jr. (column 2, line 65 through column 3, line 4), to pre-select the length of a severed web portion to be placed onto another continuous web. It would have been obvious to one of ordinary skill in the art at the time of the

invention to replace the handling manifold with one of a different size to provide strip materials with a desired length. Foote, Jr. et al. does not disclose a supply feed roller for the secondary web. It is well known and conventional in the laminating apparatus art, as disclosed by van der Klugt (Figure 1, tracking mechanism 20 and 21), to utilize feed rollers to supply a predetermined amount of a web to be employed in a laminating process. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a conventional feed roller to supply the secondary web to be severed and attached to the primary web.

As to Claim 35, Foote, Jr. et al. does not disclose a laminating device which includes a heating element for attaching a reinforcing strip via a heat seal. It is well known and conventional in the laminating apparatus art to laminating devices with heating elements for effecting material bonding via heat sealing. It would have been obvious to one of ordinary skill in the art at the time of this invention to modify the laminating device of Foote, Jr. et al. to include a heating element for bonding materials with thermally activated adhesive; heated laminating elements being well established in the art.

5. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Foote, Jr. et al. (US 4,083,737), Helm et al. (US 3,745,893), Pfaff, Jr. (US 4,197,154), and van der Klugt (US 5,584,954) as applied to claim 34 above, and further in view of Fukumoto (US 6,189,469) and Boreali et al. (US 6,210,515). Foote, Jr. et al. does not disclose a laminating device in which the cutting motion is a rocking motion. Fukumoto discloses a stripping cutting device in which the shear blade is curved and the cutting motion is a rocking motion (Figure 11; column 1, lines 57-65). Boreali et al. discloses that cutting devices such as guillotine cutters, scissors cutters, or

rotating cutting cylinders can be used interchangeably for cutting a strip material (column 3, lines 62-67). It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the cutting mechanism of Foote, Jr. et al. with the cutting mechanism such as that of Fukumoto; guillotine cutters and scissors cutters being functionally equivalent for cutting strip materials

6. Claims 37, 41, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foote, Jr. et al. (US 4,083,737), Helm et al. (US 3,745,893), Pfaff, Jr. (US 4,197,154), van der Klugt (US 5,584,954), Fukumoto (US 6,189,469) and Boreali et al. (US 6,210,515) as applied to claim 36 above, and further in view of Dreier et al. (US 4,463,693) and Taylor, Jr. (US 5,331,741). Foote, Jr. et al. does not disclose a laminating device having actuating structural elements including cam tracks, cam followers, or cam pins. It is well known and conventional in the cutting apparatus art, as disclosed by Dreier et al. (Figures 1 and 2; column 4, lines 54-63) and Taylor, Jr. (column 3, lines 5-16), to use cam tracks, cam followers, cam framework, and cam pins to facilitate movement of a cutting blade. When modifying the apparatus of Foote, Jr. et al. as noted above to include a shear blade having a rocking cutting motion, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize conventionally known actuating structural elements such as cam tracks, cam followers, and cam pins to effect the movement of the shear blade.

As to Claim 41, Foote, Jr. et al. discloses a laminating apparatus in which the shear blade does not extend into the path of the motion of the handling drive (Figure 1, cutting station 10). It is noted that when modifying the apparatus of Foote, Jr. et al. as noted above to include cam

tracks, cam followers, and cam pins to effect movement of the shear blade that the shear blade would limited such that the shear blade would not extend into the path of motion of the movable applicator.

As to Claim 42, Foote, Jr. et al. discloses a laminating device in which the shear blade extends only a predetermined distance past the support blade. It is noted that when modifying the apparatus of Foote, Jr. et al. as noted above to include conventional cam tracks, cam followers, and cam pins to effect movement of the shear blade, the movement of the shear blade would be limited to a predetermined distance by the support blade.

7. Claims 1, 3, 4 and 8-11, 38, 43, 45, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over van der Klugt (US 5,584,954) in view of Boreali et al. (US 6,210,515), Helm et al. (US 3,745,893), and Pfaff, Jr. (US 4,197,154). As to Claims 1 and 43, van der Klugt discloses a laminating device (Figure 1) which includes a primary feeding mechanism cooperating with a primary supply web (pad material 10) for advancing a predetermined length of the primary supply web (column 2, lines 61-63); a secondary feeding mechanism (tracking mechanisms 20 and 21) for advancing a predetermined length of secondary web (strips 16 and 17); a cross web shearing apparatus (rotating cylindrical knife 44) positioned downstream from the secondary feeding mechanism for receiving the predetermined length of the secondary web, the cross web shearing apparatus including a shear blade (blades 45) movable through a cutting motion to cause a strip to be sheared from the secondary web; a handling drive (tables 27) positioned adjacent the shearing apparatus for receiving the strip and moving it to a sealing location adjacent the primary supply web; and a laminating device (assembly rollers 11 and 12)

located proximate to a handling manifold (tables 27) for sealing the strip to the primary supply web. Van der Klugt discloses that the length of each cut segment of the secondary web is fixed to be equal to the length of the handling manifolds (column 3, lines 46-47). When a user selects the size of the handling manifold to be used in the laminating device of van der Klugt, it is noted that they are also selecting a predetermined length of the web. In any event, it is well known and conventional in the web handling apparatus art, as disclosed by Helm et al. (column 4, lines 35-38) and Pfaff, Jr. (column 2, line 65 through column 3, line 4), to pre-select the length of a severed web portion to be placed onto another continuous web. It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the handling drive with different sized tables to provide strip material with lengths as desired by the user. Van der Klugt does not disclose a laminating device having a shear blade that is both positioned perpendicular to the secondary material web and movable through a cutting motion. Boreali et al. discloses that cutting devices such as guillotine cutters, scissors cutters, or rotating cutting cylinders can be used interchangeably for cutting a strip material (column 3, lines 62-67). It would have been readily apparent to one of ordinary skill in the art at the time of the invention that the rotating cutting mechanism of van der Klugt could be replaced with either a functionally equivalent scissors or guillotine cutting mechanism which conventionally include shear blades that are positioned perpendicular to a support blade and web substrate and are movable through a cutting motion.

As to Claim 3, van der Klugt discloses a laminating device in which the primary feeding mechanism is a driven primary feed roller controlled to feed the predetermined amount of the primary web (column 2, lines 61-63).

As to Claim 4, van der Klugt discloses a laminating device in which the secondary feeding mechanism is a driven secondary feed roller controlled to feed the predetermined amount of the secondary web (tracking mechanisms 20 and 21).

As to Claim 8, van der Klugt discloses a laminating device in which the handling drive includes a plurality of applicator manifolds (tables 27) each using a vacuum signal to hold the strip (column 3, lines 62-64).

As to Claim 9, van der Klugt discloses a laminating device in which the plurality of applicator manifolds are attached to a rotation block, wherein the rotation block is rotatable about a central axis to appropriately position the plurality of applicator manifolds (Figure 1; column 4, lines 8-28).

As to Claims 10 and 46, van der Klugt discloses a laminating device which includes a holding clamp (application roller 43) positioned adjacent the cross web shear device and the handling device, such that the holding clamp will hold the secondary web against the handling device prior to shearing the reinforcing strip.

As to Claims 11 and 47, van der Klugt is silent as to the holding clamp being movable between a feeding position and a holding position. It is well known and conventional in the apparatus art to use movable rollers for the dual purpose of feeding and holding a web substrate. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the holding clamp in the laminating device of van der Klugt to be movable between positions for feeding and holding the secondary web; movable rollers being well established in the art.

As to Claims 38 and 45, Foote, Jr. et al. discloses an apparatus in which the shear blade extends only a predetermined distance towards the handling drive such that the shear blade does not extend into the path of motion of the handling drive (Figure 1).

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over van der Klugt (US 5,584,954), Boreali et al. (US 6,210,515), Helm et al. (US 3,745,893), and Pfaff, Jr. (US 4,197,154) as applied to claim 1 above, and further in view of Fukumoto (US 6,189,469) and Hirsch et al. (US 4,025,373). Van der Klugt does not disclose a laminating device in which the shear blade is curved and the cutting motion is a rocking motion. Fukumoto discloses a stripping cutting device in which the shear blade is curved and the cutting motion is a rocking motion (Figure 11; column 1, lines 57-65). Hirsch et al. discloses a web cutting device in which the cutting edge of the shear blade is curved to reduce the shock and impact loads of the knife against the anvil (column 3, lines 29-28). As noted above, Boreali et al. discloses that cutting devices such as guillotine cutters, scissors cutters, or rotating cutting cylinders can be used interchangeably for cutting a strip material. It would have been obvious to one of ordinary skill in the art at the time of the invention that the rotating cutting mechanism of van der Klugt could be replaced with a cutting mechanism such as that of Fukumoto; rotating cutters and scissors cutters being functionally equivalent for cutting strip materials. Also, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the cutting mechanism of Foote, Jr. et al. to include a shear blade having a curved cutting edge as suggested by Hirsch et al. to reduce the shock and impact loads of the knife against its opposing cutting surface.

9. Claims 13-15 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over van der Klugt (US 5,584,954), Helm et al. (US 4,025,373), Pfaff, Jr. (US 4,197,154), Fukumoto (US 6,189,469), Hirsch et al. (US 4,025,373) and Boreali et al.(US 6,210,515) as applied to claim 12 above, and further in view of Dreier et al. (US 4,463,693) and Taylor, Jr. (US 5,331,741). As to Claims 13, 14, and 15, van der Klugt does not disclose a laminating device having actuating structural elements including cam tracks, cam followers, or cam pins. It is well known and conventional in the cutting apparatus art, as disclosed by Dreier et al. (Figures 1 and 2; column 4, lines 54-63) and Taylor, Jr. (column 3, lines 5-16), to use cam tracks, cam followers, cam framework, and cam pins to facilitate movement of a cutting blade. When modifying the apparatus of van der Klugt as noted above to include a shear blade having a curved cutting edge and the cutting motion being a rocking motion, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize conventionally known actuating structural elements such as cam tracks, cam followers, and cam pins to effect the movement of a shear blade.

As to Claim 39, van der Klugt discloses a laminating apparatus in which the shear blade does not extend into the path of the motion of the handling drive (Figure 1, knife 44). It is noted that when modifying the apparatus of van der Klugt as noted above to include cam tracks, cam followers, and cam pins to effect movement of the shear blade that the shear blade would limited such that the shear blade would not extend into the path of motion of the handling drive.

10. Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over van der Klugt (US 5,584,954) in view of Boreali et al. (US 6,210,515), Helm et al. (US 3,745,893), and Pfaff, Jr. (US 4,197,154). Van der Klugt discloses an apparatus including a primary supply feed roller coupled to a primary web (pad material 10) to move the primary web in a predetermined manner (Figure 1, assembly rollers 11 and 12); a secondary supply feed roller coupled to a secondary web (strip 16 or 17) to move the secondary web in a predetermined manner (tracking mechanism 20 and 21); a cross web shear device having a shear blade (rotating cylindrical knife 44), the cross web shear device positioned to receive the secondary web at a cutting position between the shear blade and a movable applicator, the cross web shear further having a blade actuator for moving the shear blade through a cutting motion after the secondary web has been positioned at the cutting position resulting in a strip to be sheared from the secondary web (column 3, lines 57-67; column 4, lines 1-7); a movable applicator having an applicator manifold (tables 27) positionable in a cutting position adjacent the cross web shear device such that the secondary web extends adjacent a holding surface of the applicator manifold having a plurality of vacuum apertures in a holding surface to create a vacuum seal between the secondary web and the holding surface when the secondary web is in the cutting position, the movable applicator movable between cutting position and a delivery position allowing movement of the strip to an attachment location (column 3, lines 27-35; column 4, lines 8-28); and an attachment device (assembly rollers 11 and 12, support 14) positioned adjacent the applicator delivery position, in which the strip can be attached to the primary web by the attachment device cooperating with the applicator. Van der Klugt discloses that the length of each cut segment of the secondary web is fixed to be equal to the length of the handling manifolds (column 3, lines 46-47). When a user

selects the size of the handling manifold to be used in the laminating device of van der Klugt, it is noted that they are also selecting a predetermined length of the web. In any event, it is well known and conventional in the web handling apparatus art, as disclosed by Helm et al. (column 4, lines 35-38) and Pfaff, Jr. (column 2, line 65 through column 3, line 4), to pre-select the length of a severed web portion to be placed onto another continuous web. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of van der Klugt by replacing the applicator manifold to provide strip material with a length as desired by the user. Van der Klugt does not disclose a laminating device which includes a cross web shear device having a support blade such that the cross web shear device is positioned to receive a web substrate at a cutting position between the shear blade and the support blade. Boreali et al. discloses that cutting devices such as guillotine cutters, scissors cutters, or rotating cutting cylinders can be used interchangeably for cutting a strip material (column 3, lines 62-67). It would have been obvious to one of ordinary skill in the art at the time of the invention that the rotating cutting mechanism of van der Klugt could be replaced with either a functionally equivalent scissors or guillotine cutting mechanism which conventionally include shear blades that are positioned perpendicular to a support blade and a web substrate and are movable through a cutting motion.

As to Claim 35, van der Klugt is silent as to a laminating device which includes a heating element for attaching a reinforcing strip via a heat seal. It is well known and conventional in the laminating apparatus art to laminating devices with heating elements for effecting material bonding via heat sealing. It would have been obvious to one of ordinary skill in the art at the time of this invention to modify the laminating device of van der Klugt to include a heating

element for bonding materials with thermally activated adhesive; heated laminating elements being well established in the art.

11. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over van der Klugt (US 5,584,954), Boreali et al. (US 6,210,515), Helm et al. (US 3,745,893), and Pfaff, Jr. (US 4,025,373) as applied to claim 34 above, and further in view of Fukumoto (US 6,189,469). Van der Klugt does not disclose a laminating device in which the cutting motion is a rocking motion. Fukumoto discloses a stripping cutting device in which the cutting motion of the shear blade is a rocking motion (Figure 11; column 1, lines 57-65). As noted above, Boreali et al. discloses that cutting devices such as guillotine cutters, scissors cutters, or rotating cutting cylinders can be used interchangeably for cutting a strip material. It would have been obvious to one of ordinary skill in the art at the time of the invention that the rotating cutting mechanism of van der Klugt could be replaced with a scissors-type cutting mechanism such as that of Fukumoto; rotating cutters and scissors cutters being functionally equivalent for cutting strip materials.

12. Claims 37 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over van der Klugt (US 5,584,954), Boreali et al. (US 6,210,515), Helm et al. (US 3,745,893), Pfaff, Jr. (US 4,025,373), and Fukumoto (US 6,189,469) as applied to claim 36 above, and further in view of Dreier et al. (US 4,463,693) and Taylor, Jr. et al. (US 5,331,741). Van der Klugt does not disclose a laminating device having actuating structural elements including cam tracks or cam pins. It is well known and conventional in the cutting apparatus art, as disclosed by Dreier et al. (Figures 1 and 2; column 4, lines 54-63) and Taylor, Jr. (column 3, lines 5-16), to use cam tracks

and cam pins to facilitate movement of a cutting blade. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize conventionally known actuating structural elements such as cam tracks, cam followers, and cam pins to effect the rocking movement of a shear blade.

As to Claim 41, van der Klugt discloses a laminating apparatus in which the shear blade does not extend into the path of the motion of the handling drive (Figure 1, knife 44). It is noted that when modifying the apparatus of van der Klugt as noted above to include cam tracks, cam followers, and cam pins to effect movement of the shear blade that the shear blade would limited such that the shear blade would not extend into the path of motion of the movable applicator.

Response to Arguments

13. In response to the applicant's amendments of Claims 1, 7, 8, 10, 11, 34, and 37, the rejection of Claims 1-19 under 35 USC § 112, second paragraph, has been withdrawn.

In response to the applicant's arguments concerning the references of Eicker and Beaudoin et al., the Examiner has withdrawn the rejection of Claims 1-4, 7, 12, 13-18, and 19 under 35 USC § 102(b) and 35 § USC 103(a) over the reference of Eicker and the rejection of Claims 1-6, 8, 9, 12-18, and 34-37 under 35 USC 103 (a) over the reference of Beaudoin et al.

In response to the applicant's amendments and arguments that Foote, Jr. et al. does not disclose a secondary feeding mechanism which advances the secondary web a selectable predetermined length, the Examiner disagrees. The Examiner submits that when a user selects the width of the strip material to be used in the laminating device of Foote, Jr. et al., it is noted that they are also selecting the predetermined length of the web. In any event, it is well known

and conventional in the web handling apparatus art, as disclosed by Helm et al. (column 4, lines 35-38) and Pfaff, Jr. (column 2, line 65 through column 3, line 4), to pre-select the length of a severed web portion to be placed onto another continuous web. The Examiner maintains that it would have been obvious to one of ordinary skill in the art at the time of the invention to replace the handling manifold with one of a different size to provide strip materials with a desired length.

In response to the applicant's amendments and arguments that the references of Fukumoto and Boreali et al. do not disclose a laminating apparatus which includes a shear blade having a curved cutting edge, the Examiner has added the reference of Hirsch et al. to the rejection to disclose a web cutting device in which the cutting edge of the shear blade is curved to reduce the shock and impact loads of the knife against the anvil (column 3, lines 29-28). The Examiner maintains that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the cutting mechanism of Foote, Jr. et al. to include a shear blade having a curved cutting edge as suggested by Hirsch et al. to reduce the shock and impact loads of the knife against its opposing cutting surface.

In response to the applicant's arguments that the reference of Fukumoto does not disclose a shear blade having a rocking motion, the Examiner notes that the reference of Fukumoto specifically discloses the movement of the shear blade as rocking (see column 1, line 64 and Figure 11; movable blade 54)

In response to the applicant's arguments that the references of Dreier et al. and Taylor, Jr. does not disclose structural cam elements which cause the rocking cutting motion of a shear blade, the Examiner disagrees. The references of Foote, Jr. et al. and van der Klugt do not disclose a laminating device having actuating structural elements including cam tracks, cam

followers, or cam pins. It is well known and conventional in the cutting apparatus art, as disclosed by Dreier et al. and Taylor, Jr., to use cam tracks, cam followers, cam framework, and cam pins to facilitate movement of a cutting blade. Fukumoto discloses a stripping cutting device in which the shear blade is curved and the cutting motion is a rocking motion. Boreali et al. discloses that cutting devices such as guillotine cutters, scissors cutters, or rotating cutting cylinders can be used interchangeably for cutting a strip material. It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the cutting mechanism of Foote, Jr. et al. with the cutting mechanism such as that of Fukumoto; guillotine cutters and scissors cutters being functionally equivalent for cutting strip materials. When modifying the apparatus of Foote, Jr. et al. as noted above to include a shear blade having a rocking cutting motion as suggested by Fukumoto, the Examiner maintains that it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize conventionally known actuating structural elements such as cam tracks, cam followers, and cam pins to effect the movement of the shear blade.

In response to the applicant's arguments that the reference of van der Klugt does not disclose a laminating device, the Examiner disagrees. The reference of van der Klugt discloses an apparatus which is employed to place severed strip portions (Figure 1, strips 46) to a continuous web (Figure 1, material 10). The conventional definition of lamination is the process of uniting material layers by adhesive or other means, therefore the Examiner maintains that the apparatus of van der Klugt qualifies as a laminating device.

In response to the applicant's amendments and arguments that van der Klugt does not disclose a secondary feeding mechanism which advances the secondary web a selectable

predetermined length, the Examiner disagrees. Van der Klugt discloses that the length of each cut segment of the secondary web is fixed to be equal to the length of the handling manifolds (column 3, lines 46-47). When a user selects the size of the handling manifold to be used in the laminating device of van der Klugt, it is noted that they are also selecting a predetermined length of the web. In any event, it is well known and conventional in the web handling apparatus art, as disclosed by Helm et al. (column 4, lines 35-38) and Pfaff, Jr. (column 2, line 65 through column 3, line 4), to pre-select the length of a severed web portion to be placed onto another continuous web. It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the handling drive with different sized tables to provide strip material with lengths as desired by the user.

In response to the applicant's arguments that replacing the cutting mechanism disclosed by van der Klugt with the cutting mechanism disclosed by Boreali et al. would destroy the function and purpose of the apparatus of van der Klugt, the Examiner notes that the reference of Boreali et al. was presented only to provide motivation for using guillotine cutters, scissors cutters, and rotating cutting cylinders interchangeably for cutting a strip material. The rejection then goes to state that it would have been obvious to one of ordinary skill in the art at the time of the invention to replace the cutting mechanism of van der Klugt with the cutting mechanism such as that of Fukumoto; guillotine cutters and scissors cutters being functionally equivalent for cutting strip materials. The Examiner submits that modifying the cutting mechanism disclosed van der Klugt to include a cutting mechanism such as that suggested by Fukumoto would result in a functioning laminating apparatus that would include a flat support blade such as that disclosed by Fukumoto (see Figure 11, stationary blade 53) positioned adjacent to the table of

van der Klugt that would cooperate with a shear blade perpendicularly positioned shear blade to sever web portions at the edges of each table.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl N. Hawkins whose telephone number is (703) 306-0941. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-3853. The fax phone numbers for the

organization where the application or proceeding is assigned is (703) 872-9310 for regular communications or (703) 872-9311 for After-Final communications.

Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is (703) 308-0661.

Cheryl N. Hawkins

Cheryl N. Hawkins 6/2/03

June 2, 2003

RICHARD CRISPINO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700